ROOSEVELT ROADS NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

Engineering Field Division/Activity: LANTDIV

Major Claimant: CINCLANTFLT

> Size: 32,161 Acres

Funding to Date: \$9,360,000

Estimated Funding to Complete: \$51,596,000

Base Mission: Provides full support for Atlantic Fleet Weapons training and development activities

High:

Low:

Medium:

Contaminants: Solvents, paint, paint strippers and thinners, oils, fuel sludges, pesticides, PCBs, acids, asbestos

Number of Sites: Relative Risk Ranking of Sites:

CERCLA: RCRA Corrective Action:

RCRA UST:

Total Sites:

26 16

49

16 Not Evaluated:

> Not Required: 20

0

Sites Response Complete:

PROGRESS AND PLANS

3

10

CERCLA	FY95 and before	FY96	FY97	FY98	FY99	FY00	FY01	FY02 and After
PA / SI	6				1			
RI / FS	1	1		1	1			
RD								
RAC								
RAO								
IRA	1(1)							
RC	4	1		1	1			
Cumulative % RC	57%	71%	71%	86%	100%	100%	100%	100%
RCRA CA	FY95 and before	FY96	FY97	FY98	FY99	FY00	FY01	FY02 and After
RFA	2			22		2		
RFI / CMS				1	7	15		1
DES					4	1	15	4
CMI							4	20
CMO								6
IRA	2(2)							
RC	2						3	21
Cumulative % RC	8%	8%	8%	8%	8%	8%	19%	100%
UST	FY95 and before	FY96	FY97	FY98	FY99	FY00	FY01	FY02 and After
SA	16							
CAP	1	7						
DES		2	1					
IMP			1	2				
IMO		2						3
IRA								2(2)
RC	9	4						3
Cumulative % RC	56%	81%	81%	81%	81%	81%	81%	100%

SABANA SECA NAVAL SECURITY GROUP ACTIVITY SABANA SECA, PUERTO RICO Engineering Field Division/Activity: LANTDIV Major Claimant: **COMNAVSECGRU** Size: 2,252 Acres Funding to Date: \$3,317,000 **Estimated Funding to Complete:** \$1,149,000 Base Mission: Operates a high frequency direction finding facility and provides communication and related services, and manpower assistance to components of Department of the Navy and other Department of Defense elements within the area Contaminants: Heavy metals (arsenic, copper, lead, mercury, zinc), PCBs, pesticides/herbicides, phenols **Number of Sites:** Relative Risk Ranking of Sites: **CERCLA:** NPL High: Not Evaluated: **RCRA Corrective Action:** Medium: Not Required: RCRA UST: Sites Response Complete: **Total Sites:** 8 **EXECUTIVE SUMMARY**

Sabana Seca Naval Security Group Activity (NSGA) is located on the north central coast of Puerto Rico, approximately 11 miles west of the capital city of San Juan, adjacent to the village of Sabana Seca. The station encompasses over 2,200 acres of land and is divided into the North and South Tracts.

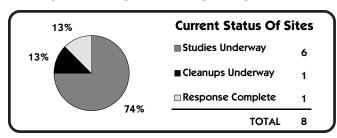
The South Tract consists of 921 acres and is known as the Support Site. The site contains the office of the Commanding Officer, facility maintenance, administration, housing, supply, health care facilities, recreation and retail outlets.

The 1,333 acre North Tract, commonly referred to as the Operations Site, contains the Circularly Disposed Antenna Array (CDAA); the CDAA operations building (Building 85), located in the center of the array; and the Naval Radio Receiver Facility, located adjacent to Building 85.

Both the North and South Tracts are surrounded by buffered zones which provide electromagnetic interference free zones for the communications receiving equipment. A total of four outleases covering in excess of 1,500 acres are presently in effect for agricultural uses at both tracts.

The mission of NSGA Sabana Seca is to operate a High Frequency Direction Finding Facility and provide communications and related support, including communications relay, communications security and communications manpower assistance to components of the US Navy and other Department of Defense (DOD) elements within the area as assigned by Chief of Naval Operations (CNO).

Typical operations that contributed to contaminated sites on the facility include paint shops, boiler plants, power plants, carpenter shop, pest control shop, electrical shop, air conditioning and refrigeration shop, plumbing shop, vehicle maintenance shop, fire fighting training and water treatment plants. Current operations include pollution prevention



technologies to prevent further contamination. The primary sites of concern are a former pest control shop where pesticides and herbicides were disposed of and a leachate ponding area which receives leachate from an adjacent municipal landfill. This landfill accepts anything from residential, pharmaceutical, chemical, industrial and infectious waste. The NSGA is under an Federal Facility Agreement (FFA) with the EPA which was signed in March 1992.

A Technical Review Committee (TRC) was formed in FY90 to solicit community input in the cleanup decision-making process. The installation focuses its public involvement efforts on the specific needs of the local community. For example, the Community Relations Plan (CRP), prepared in FY91, was provided in both English and Spanish versions to accommodate a bilingual community. The Navy converted the TRC into a Restoration Advisory Board (RAB) in FY96, and included identifying additional members and soliciting their participation on the RAB. An Information Repository and Administrative Record were established in the community to ensure public access to documents related to the cleanup program.

Currently, six CERCLA sites are in a study phase. Of these six sites, Sites 1-4 are in a Site Inspection (SI) and two, Sites 6 and 7, are in a Remedial Investigation/Feasibility Study (RI/FS).

UST 1 is the only site currently Response Complete (RC). The cleanup at Site 5 was completed as a result of a removal action in 1984 to dispose of debris at a nearby municipal landfill. The remaining inert material was buried on-site. This site, along with Site 7 will be classified response complete upon receipt of documentation from EPA stating no further action is required. This is anticipated early FY97. A Corrective Action Plan (CAP) on the one RCRA Under Ground Storage Tank (UST) site, UST 1, was completed in FY94 resulting in the site being RC. Completion of the Site Investigation Report and NFRAP Decision Documents for Sites 2 and 4 were moved to FY97 in order to get better acquainted with the unique environment of Puerto Rico. Removal of cabinets housing transformers containing PCBs at Site 6 will be accomplished by the RA contractor during the RA phase.

As of 30 September 1996

SABANA SECA NSGA RELEVANT ISSUES

ENVIRONMENTAL RISK



HYDROGEOLOGY - The North tract of NSGA is primarily a swampy area covered by stagnant water. Sandy muck and clay sands, generally less than ten meters thick, predominate in the

area. Alluvial deposits consisting of sand, clay and sandy clay with variable thickness up to 25 meters thick are located near the CDAA and the village of Ingenio. The alluvium and muck are underlain by limestone. Some of the soils on Sabana Seca are clays. They are mostly level, but some are well drained. The aquifer supplying the south tract is only about 40 feet below ground level. Contamination via leachates from the nearby municipal landfill is a potential threat. The South Tract is supplied by two wells 130 and 140 feet below ground level. The water from these wells is disinfected by direct chlorine injection.



NATURAL RESOURCES - The North Tract is bordered to the north by the Cocal River, agricultural land and further north the Atlantic Ocean. The rural community of Ingenio is located

directly southwest of this tract. Agricultural lands abut the eastern perimeter and Route 867 forms the southern boundary of the tract, adjoining it to the South Tract.

The South Tract is bordered to the north by Route 867 and agricultural land. The village of Sabana Seca is located adjacent to the eastern perimeter and the De Diego Expressway traverses the southern portion of the tract. Land to the west of the tract is used primarily for agricultural purposes, cattle grazing and a municipal landfill. The US Department of Health and Human Services owns the land directly adjacent to the western perimeter of the base and leases it for a Primate Research Center (PRC). Department of Health and Human Services leases a small portion of land from the Navy to support the PRC.

Of the 21 federally listed endangered and threatened species of Puerto Rico only one, the Puerto Rican boa has been captured in areas similar to those found in the haystack hills in the South Tract; however, there have been no reported sightings of any wildlife species on the endangered or threatened species list at either the North or South Tracts or in the general vicinity of the activity.



RISK - A Baseline Risk Assessment, both ecological and human health, has been completed for Sites 6 and 7 and is currently ongoing for Sites 1 and 3 following the EPA

guidance. For the DOD Relative Risk Ranking System, six of the eight sites have been ranked. This resulted in two sites being ranked as high. These high-ranked sites were so ranked primarily due to known soil and groundwater contamination and identified migration pathways.

The Agency for Toxic Substance and Disease Register (ATSDR) performed a public health assessment for the installation.

REGULATORY ISSUES



NATIONAL PRIORITIES LIST - The installation was placed on the NPL in October 1989 with a Hazard Ranking System score of 34.28. This score was a result of one site (Site 6) with

pesticide contamination being adjacent to the base picnic/playground and housing areas.



LEGAL AGREEMENTS - A Federal Facilities Agreement (FFA), was signed in March 1992 between the Navy, EPA and Puerto Rican Environmental Quality Board (PREQB). The Site

Scope of Work (SSOW), which is updated annually, contains the investigation and cleanup schedules for the sites and is included by reference as part of the FFA.

COMMUNITY INVOLVEMENT



RESTORATION ADVISORY BOARD - A Technical Review Committee (TRC) was formed in FY90 to solicit community input in the cleanup decision-making process. The installation

focuses its public involvement efforts on the specific needs of the local community. The TRC was converted into a Restoration Advisory Board (RAB) during FY96.



COMMUNITY RELATIONS PLAN - A Community Relations Plan (CRP) Plan was prepared in FY91. It was provided in English as well as Spanish.



INFORMATION REPOSITORY - An Information Repository and Administrative Record were established in the community to ensure public access to documents related to the

HISTORICAL PROGRESS

FY84

Sites 1-7 - Preliminary Assessments (PAs) were completed.

Site 5 - An Interim Remedial Action (IRA) was completed. The majority of debris was removed and disposed of at the nearby municipal landfill. The remaining inert material was buried on-site.

FY88

Site 6 - An IRA was completed which included demolition and disposal of the Pesticide Shop at the nearby municipal landfill. Removal action included placing a six inch cover of clean soil over the site and surrounding the site with a fence to prevent exposure to spilled pesticides. Hazardous waste was removed and disposed of accordingly.

FY89

Sites 6 and 7 - SIs were completed.

FY92

UST 1 - An Initial Site Characterization (ISC) was completed.

FY93

Site 6 - An RI which focused on pesticide and herbicide contamination was completed.

Site 7 - An FS was conducted to determine the IRA needed to protect installation personnel from exposure to leachate from the municipal landfill

UST 1 - An Investigation (INV) was completed.

FY94

Site 6 - A draft Proposed Remedial Action Plan (PRAP) was completed in September 1994 which called for excavation and disposal of contaminated soil to an off-site location. However, this proposed action was too aggressive, considering the very small quantity of contaminated soil present. Therefore, the draft PRAP is currently being revised and will present capping with asphalt as the Navy's preferred remedy. Prior to an RA, the cabinets that housed chemical additive PCB-containing transformers will be removed.

SABANA SECA NSGA HISTORICAL PROGRESS

Site 7 - A Treatability Study (TS) was initiated for the Engineered Wetland alternative which called for the field construction of a pilot-scale engineered wetland system to be studied for a minimum of six months. The Engineered Wetland intended to biologically treat leachate-contaminated runoff that flows from the municipal landfill adjacent to Navy property. The TS was never completed due to significant changes in the site conditions. A No Further Response Action Planned (NFRAP) decision document will be prepared in FY96.

UST 1 - A CAP was completed.

FY95

Sites 1 and 3 - Initiated expanded SI efforts.

Sites 2 and 4 - SIs underway expected to be completed in FY96. Initiated preparation of No Further Response Action Planned (NFRAP) decision documents.

Site 6 - An RI/FS underway is expected to be completed in FY96. Initiated preparation of PRAP and Records of Decision (ROD).

PROGRESS DURING FISCAL YEAR 1996

FY96

Conversion of TRC into a RAB was completed.

Completed Photographic Album and Information Brochures to explain the cleanup program. Distributed completed brochures to RAB members and presented them during public meetings.

Sites 1 and 3 - Issued Draft Expanded SI Report in September 1996. Site 6 - The RI/FS and PRAP were completed and the ROD was signed. The RD phase was completed and the RA was awarded.

Sites 5 and 7 - Consulted with EPA and EQB regarding the need to issue a formal NFRAP

UST 1 - The IMO was completed and the site is now Response Complete

PLANS FOR FISCAL YEARS 1997 AND 1998

FY97

Sites 1, 2, 3 and 4 - SIs are expected to be complete.

Sites 1 and 3 - An RI/FS will be started and completed if required by results of the expanded SI.

Sites 1-4 - A NFRAP is expected to be to completed unless additional work is justified by results of studies currently underway.

Site 6 - An RA is expected to be completed.

Sites 5 and 7 - An RI/FS was planned for these two sites however based on consultations with EPA and EQB it is not required. A NFRAP is expected to be completed based on results of treatability study.

FY98

Proposed to remove activity from NPL.

PROGRESS AND PLANS

CERCLA	FY95 and before	FY96	FY97	FY98	FY99	FY00	FY01	FY02 and After
PA / SI	3		4					
RI / FS		1	4					
RD		1						
RAC			1					
RAO								1
IRA	3(6)							
RC			6					1
Cumulative % RC	0%	0%	86%	86%	86%	86%	86%	100%
UST	FY95 and before	FY96	FY97	FY98	FY99	FY00	FY01	FY02 and After
UST		FY96	FY97	FY98	FY99	FY00	FY01	
	before	FY96	FY97	FY98	FY99	FY00	FY01	
SA	before 1	FY96	FY97	FY98	FY99	FY00	FY01	
SA CAP	before 1	FY96	FY97	FY98	FY99	FY00	FY01	
SA CAP DES	before 1	FY96	FY97	FY98	FY99	FY00	FY01	
SA CAP DES IMP	before 1		FY97	FY98	FY99	FY00	FY01	
SA CAP DES IMP	before 1		FY97	FY98	FY99	FYOO	FY01	

As of 30 September 1996

SAN JUAN PUERTO RICO SUPERVISOR OF SHIPBUILDING PUERTO RICO

Engineering Field Division/Activity: LANTDIV

Major Claimant: COMNAVSEASYSCOM

Size: 38 Acres

Funding to Date: \$100,000

Estimated Funding to Complete: \$0

Base Mission: Former base for support of Naval Aircraft and Operations in Caribbean, now leased to Puerto Rico government, and

Puerto Rico Dry-dock and Marine terminal; vessel servicing and repair

Contaminants: Sandblasting grit, paint, fuel oil, diesel fuel

Number of Sites: Relative Risk Ranking of Sites:

CERCLA: 3
RCRA Corrective Action: 0

RCRA UST:

Total Sites:

High:

0 Not Evaluated: 0

Medium: 0
Low: 0

Not Required: 3

Sites Response Complete:

PROGRESS AND PLANS

					1		1	
CERCLA	FY95 and before	FY96	FY97	FY98	FY99	FY00	FY01	FY02 and After
PA / SI	3							
RI / FS								
RD								
RAC								
RAO								
IRA								
RC	3							
Cumulative % RC	100%	100%	100%	100%	100%	100%	100%	100%